

8033-111

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, D.C. 20460

OFFICE OF  
CHEMICAL SAFETY  
AND POLLUTION PREVENTION

NOV 20 2013

Mr. John Reilly  
Nippon Soda Co. Ltd  
c/o Nisso America Inc.  
88 Pine St., 14<sup>th</sup> Floor  
New York, NY 10005

Subject: Label Amendment  
Confirm 2F Insecticide  
EPA Registration Number: 8033-111  
Application Date: July 15, 2013

Dear Mr: Reilly:

The label referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide, and Rodenticide Act, as amended, is acceptable. A stamped copy is enclosed for your records.

If you have any questions, please contact Melody Banks on 703 305-5413 or via E-mail @ [banks.melody@epa.gov](mailto:banks.melody@epa.gov).

Sincerely,

A handwritten signature in black ink, appearing to read "Richard Gebken".

Richard Gebken  
Insecticide Branch  
Product Manager  
Registration Division (7504P)

Enclosure: Stamped Accepted Copy of Product Label



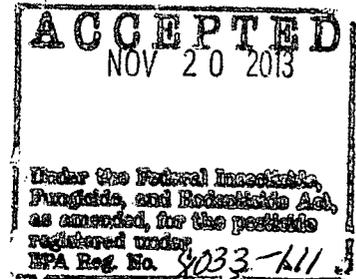
# Confirm<sup>®</sup> 2F

## Insecticide

*In the State of New York, this product is prohibited from use in Nassau and Suffolk Counties.*

Active Ingredient:

tebufenozide: benzoic acid, 3,5-dimethyl-, 1-(1,1-dimethylethyl)-2-(4-ethylbenzoyl) hydrazide .....	23%
Other Ingredients .....	77%
Total .....	100%



Contains 2 lb active ingredient per gallon

**Keep Out of Reach of Children**

## CAUTION

### Agricultural Use Requirements

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR Part 170. Refer to the label booklet under "Agricultural Use Requirements" in the Directions for Use section for information about this standard.

Refer to inside of label booklet for additional precautionary information including Directions for Use.

**Notice:** Read the entire label. Use only according to label directions. **Before using this product, read Warranty Disclaimer, Inherent Risks of Use, and Limitation of Remedies at end of label booklet. If terms are unacceptable, return at once unopened.**

Agricultural Chemical: Do not ship or store with food, feeds, drugs or clothing.

EPA Reg. No. 8033-111

EPA Est. \_\_\_\_\_

®Trademark of Nippon Soda Co., Ltd.

Nippon Soda Co., Ltd.  
c/o Nisso America Inc.  
88 Pine Street, 14<sup>th</sup> Floor  
New York, NY 10005

Net Contents \_\_\_\_\_  
Batch No. \_\_\_\_\_

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## Precautionary Statements

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### Hazards to Humans and Domestic Animals

# CAUTION

**May Cause Eye Irritation •Harmful If Swallowed, Inhaled Or Absorbed Through The Skin**

**Do not swallow, get in eyes, on skin or breathe spray mist.**

### Personal Protective Equipment (PPE)

**Applicators and other handlers must wear:**

- Long-sleeved shirt and long pants
- Waterproof gloves
- Shoes plus socks

Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

### Engineering Controls

When handlers use closed systems, enclosed cabs or aircraft in a manner that meet the requirements listed in the Worker Protection Standards (WPS) for agricultural pesticides [40 CFR 170.240(d) (4-6)], the handler PPE requirements may be reduced or modified as specified in the WPS.

### User Safety Recommendations

Users should:

- Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.
- Remove contaminated clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.

### First Aid

**If in eyes;** Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.

**If inhaled:** Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible. Call a poison control center or doctor for further treatment advice.

**If on skin or clothing:** Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.

**If swallowed** Call a poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by a poison control center or doctor. Do not give anything by mouth to an unconscious person.

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-800-992-5994 day or night, for emergency treatment information.

### Environmental Hazards

This product is toxic to aquatic invertebrates. Drift and runoff may be hazardous to aquatic organisms in neighboring areas. Under some conditions, this chemical may also have a high potential for runoff into surface water for several weeks or months after application. Do not cultivate within 10 feet of aquatic areas so as to allow growth of a vegetative filter strip. Drift from applications of this pesticide is likely to result in damage to sensitive aquatic invertebrates in water bodies adjacent to treatment area.

For terrestrial uses, do not apply directly to water or to areas where surface water is present or to intertidal areas below the mean high water mark, except under forest canopy when aerially applied to control forest pests. Do not contaminate water when disposing of equipment washwaters and rinsate. Do not apply when weather conditions favor drift or runoff from areas treated.

This pesticide demonstrates the properties and characteristics associated with chemicals detected in groundwater. The use of this chemical in areas where soils are permeable, particularly where the water table is shallow, may result in groundwater contamination.

**In New York:** Do not apply by ground within 25 feet, or by air within 150 feet, of lakes, reservoirs, rivers, permanent streams, marshes, or natural ponds; estuaries and commercial fish farm ponds.

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### Directions for Use

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It is a violation of Federal law to use this product in a manner inconsistent with its labeling. Read all Directions for Use carefully before applying.

Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your state or tribe, consult the agency responsible for pesticide regulation.

### Agricultural Use Requirements

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR Part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE) and restricted-entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 4 hours.

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil or water, is:

- Coveralls
- Waterproof gloves
- Socks and chemical-resistant footwear

### Non-Agricultural Use Requirements

The requirements in this box apply to uses of this product that are NOT within the scope of the Worker Protection Standard for agricultural pesticides (40 CFR Part 170). The WPS applies when this product is used to produce agricultural plants on farms, forests, nurseries, or greenhouses.

Keep unprotected persons out of treated area until sprays have dried.

### Storage and Disposal

Do not contaminate water, food, or feed by storage and disposal.

**Pesticide Storage:** Store in a cool, dry, well-ventilated area, but not below 32°F.

**Pesticide Disposal:** Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.

**Nonrefillable containers 5 gallons or less:**

**Container Reuse:** Nonrefillable container. Do not reuse or refill this container. Offer for recycling if available.

Triple rinse or pressure rinse container (or equivalent) promptly after emptying. **Triple rinse** as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. **Pressure rinse** as follows: Empty the remaining contents into application equipment or a mix tank and continue to drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or mix tank or collect rinsate for later use or disposal. Insert pressure rinsing nozzle in the side of the container, and rinse at about 40 psi for at least 30 seconds. Drain for 10 seconds after the flow begins to drip.

**Refillable containers 5 gallons or larger:**

**Container Reuse:** Refillable container. Refill this container with pesticide only. Do not reuse this container for any other purpose.

Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller. To clean the container before final disposal, empty the remaining contents from this container into application equipment or a mix tank. Fill the container about 10% full with water and, if possible, spray all sides while adding water. If practical, agitate vigorously or recirculate water with the pump for two minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times.

**Nonrefillable containers 5 gallons or larger:**

**Container Reuse:** Nonrefillable container. Do not reuse or refill this container. Offer for recycling if available.

Triple rinse or pressure rinse container (or equivalent) promptly after emptying. **Triple rinse** as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container 1/4 full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times. **Pressure rinse** as follows: Empty the remaining contents into application equipment or a mix tank and continue to drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or mix tank or collect rinsate for later use or disposal. Insert pressure rinsing nozzle in the side of the container, and rinse at about 40 psi for at least 30 seconds. Drain for 10 seconds after the flow begins to drip.

## General Information

Confirm<sup>®</sup> 2F insecticide mimics the action of the natural insect hormone 20-hydroxyecdysone, the physiological inducer of the molting and metamorphosis process in insects. Confirm 2F is highly active against most lepidopterous larvae while having practically no activity at typical use rates against other orders of insects. The selectivity of Confirm 2F allows for the maintenance of the populations of beneficial and predatory insects, which is a key element in integrated pest management programs. Confirm 2F controls lepidopterous larvae through a novel mode of action by the induction of a premature lethal molt which initiates within hours of ingestion of treated crop surfaces. Contact activity has also been observed in some insects. Actual death of the larvae will take several days to occur, although feeding by the insects generally ceases within 24 hours of ingestion.

## Use Rate Determination

Carefully read, understand and follow label use rates, recommendations and restrictions. Apply the amount specified in the crop-specific tables listed in this label with properly calibrated aerial or ground spray equipment.

The low rates may be used for light infestations of the target lepidopterous species and the higher rates for moderate to heavy infestations. Confirm 2F may be applied in either dilute or concentrate sprays so long as the application equipment is calibrated and adjusted to deliver thorough, uniform coverage. Use

the specified amount of Confirm 2F per acre regardless of spray volume used. Prepare only the amount of spray solution required to treat the measured acreage.

### **Mixing and Compatibility**

Fill the spray tank one-third to one-half full of clean water and slowly pour Confirm 2F into the spray tank. Maintain agitation in the spray tank during mixing, loading and application. Triple rinse empty container and add rinsate to spray tank.

Confirm 2F is believed to be compatible with most commonly used agricultural fungicides, insecticides, growth regulators, foliar fertilizers and spray adjuvants. If in doubt, mix proportional amounts of all spray ingredients in a test vessel. Shake the mixture vigorously and allow it to stand for fifteen minutes. Rapid precipitation of the ingredients and failure to re-suspend when shaken indicates that the mixture is incompatible and should not be applied.

### **Application Timing**

The activity of Confirm 2F is expressed primarily through ingestion by the target larvae. Consequently, the timing of application is dependent upon the feeding behavior of the target pest. For internal feeding larvae, application must be made prior to the time that surface feeding occurs. For foliar or surface feeding larvae, application made while active feeding is occurring will be effective.

Reapplication may be required to protect new flushes of foliage or rapidly expanding fruit. The reapplication interval will vary depending upon how rapidly the crop is growing and the generation time of the target pest. While Confirm 2F is essentially equally effective against all instars, it is generally good practice to make applications to early instars to avoid the heavy damage that can be inflicted by later instar larvae.

For best results, begin applications when first signs of feeding damage or when threshold levels of moths, eggs or larvae occur. Consult the Cooperative Extension Service, or other qualified professional authorities, to determine the appropriate threshold for application in your area.

### **Application Instructions**

Because Confirm 2F must be ingested by the larvae, application must be in a manner that assures uniform and thorough coverage. Higher water volume and increased spray pressure generally provide better coverage. Operating an air-blast sprayer at ground speeds greater than 2 mph and making applications in an alternate row middle pattern in tree crops and vines may result in less than satisfactory coverage and poor performance, particularly in conditions of high pest infestation levels, extremely large trees and/or dense foliage. Avoid application under conditions when uniform coverage cannot be assured or when excessive spray drift may occur. A minimum of six hours drying time is required between the completion of application and the onset of precipitation to ensure optimum performance.

**Chemigation:** Do not apply this product through any type of irrigation system except as specified for use on cranberries and ornamentals.

### **Spray Adjuvants**

The addition of agricultural adjuvants to Confirm 2F sprays will improve initial spray deposits, redistribution and weatherability.

Place Confirm 2F into suspension prior to adding an adjuvant to the spray mixture. Read and carefully observe the precautionary statements and all other information appearing on all product labels prior to spray preparation.

### **Resistance Management**

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Any insect population may contain individuals that are naturally resistant to a specific pesticide; therefore, the use of any one insecticide against many consecutive generations of a pest can result in the development of resistance problems. To prevent or delay the development of resistance, Nippon Soda Co., Ltd. recommends rotation of Confirm 2F with insecticides of alternate modes of action and the utilization of Integrated Pest Management practices such as routine monitoring, the use of treatment thresholds to time applications and cultural and biological controls wherever possible. It is further recommended that Confirm 2F not be used on more than three consecutive generations of a pest. Since the development of resistance cannot be predicted we suggest that you consult local or State Extension personnel or your local Nippon Soda Co., Ltd. representative for resistance management guidance appropriate to your crop, locality and production practices

**Rotational Crop Restrictions**

The following rotational crops may be planted at intervals defined below following the final application of Confirm 2F at the recommended rates for a registered use.

Crop	Re-Cropping Interval
Crops for which Confirm 2F use is registered	No restrictions
All other crops	30 days

**Note:** When using Confirm 2F with other registered pesticides, always refer to rotational restrictions and precautions on the other product's label and comply with the most restrictive rotational guidelines.

**Bushberries**

(blueberries-high bush and low bush, currant, elderberry, gooseberry and huckleberry)

**Ground Application:** Make applications by conventional boom or air-blast sprayers that are calibrated to deliver a minimum of 30 gallons per acre.

**Aerial Application:** Make applications of Confirm 2F in a minimum of 10 gallons per acre.

**Spray Adjuvant:** A spreader-sticker should only be used if recommended by a local expert and if previous experience has been satisfactory. Under certain conditions adjuvant usage can result in blossom and fruit damage.

Target Pests	Confirm 2F fl oz/acre	Application Timing	Restrictions
cherry fruitworm ( <i>Grapholita packardii</i> ) cranberry fruitworm ( <i>Acrobasis vaccinii</i> )	16 (0.25 lb ai/acre)	Apply at initiation of egg laying [approximately 400 Day Degrees (DD) base 50°F] following biofix <sup>1</sup> . Make a second application at 100% petal fall (usually 7 to 14 days following the first application). Additional applications at 10- to 14-day intervals may be required under high pressure or sustained moth flight.	<ul style="list-style-type: none"> <li>Do not apply more than 64 fl oz of this product per season.</li> <li>Allow at least 14 days to elapse between final application and harvest.</li> </ul>

<p>obliquebanded leafroller (<i>Choristoneura rosaceana</i>)</p>		<p><b>Spring (overwintering) generation:</b> Make one to two applications at bloom to petal fall to small larvae when threshold levels occur. <b>Summer generation:</b> Begin applications at peak moth flight (200-300 DD) following biofix<sup>1</sup>-base 43°F). Additional applications at 10- to 14-day intervals may be required under high pressure or sustained moth flight.</p>	
<p>redbanded leafroller (<i>Argyrotaenia velutinana</i>) variegated leafroller (<i>Platynota flavedana</i>)</p>		<p>For control of other leafrollers, begin applications at early egg hatch for each generation. Make the first application before webbing and sheltering begins. Make a second application in 10 to 14 days to ensure complete coverage of rapidly expanding fruits or foliage.</p>	
<p>spanworm</p>		<p>Begin applications when first signs of feeding damage appear or when infestations reach threshold levels as defined by Cooperative Extension Service or other qualified professional authorities.</p>	
<p>green fruitworm (<i>Lithophane antennata</i>)</p>		<p>Begin applications when larvae are first detected in the clusters or when infestations reach threshold levels as defined by Cooperative Extension Service or other qualified professional authorities.</p>	
<p>armyworm cutworm</p>	<p>8 - 16 (0.12 - 0.25 lb ai/acre)</p>	<p>Begin applications when first signs of feeding damage appear or when infestations reach threshold levels as defined by Cooperative Extension Service or other qualified professional authorities.</p>	
<p>gypsy moth (<i>Lymantria dispar</i>)</p>	<p>4 - 8 (0.06 - 0.12 lb ai/acre)</p>	<p>Apply to early instars (1st, 2nd, or 3rd) at first signs of infestation.</p>	

<sup>1</sup>Biofix is defined as first sustained adult catch in pheromone traps, typically, five moths in three traps within a seven-day period. Consult State Extension Specialists or other qualified authorities for specific information regarding number, placement and management of pheromone traps.

**Caneberries**

**Including:** bingleberry, black satin berry, blackberry, boysenberry, Cherokee blackberry, chesterberry, Cheyenne blackberry, coryberry, darrowberry, dewberry, dirksen thornless berry, Himalayaberry, hullberry, lavacaberry, loganberry, lowberry, lucretiaberry, mammoth blackberry, marionberry, nectarberry,

ollaliberry, Oregon evergreen berry, phenomenalberry, rangeberry, ravenberry, red and black raspberry, rossberry, Shawnee blackberry, youngberry and varieties and hybrids of these.

**Ground Application:** Make applications by conventional boom or air-blast sprayers that are calibrated to deliver a minimum of 30 gallons per acre.

**Aerial Application:** Make applications of Confirm 2F in a minimum of 10 gallons per acre.

**Spray Adjuvants:** A spreader-sticker should only be used if recommended by a local expert and if previous experience has been satisfactory. Under certain conditions, adjuvant usage can result in blossom and fruit damage.

Target Pests	Confirm 2F fl oz/acre	Application Timing	Restrictions
orange tortrix ( <i>Argyrotaenia citrana</i> )	16 (0.25 lb a./acre)	<b>Spring generation:</b> Apply at first sign of larval infestation or to small larvae when threshold levels occur. <b>Summer generation:</b> Begin applications at first egg hatch. Additional applications at 10- to 14-day intervals may be required under high pressure or sustained moth flight.	<ul style="list-style-type: none"> <li>Do not apply more than 64 fl oz of this product per season.</li> <li>Allow at least 14 days to elapse between final application and harvest.</li> </ul>
obliquebanded leafroller ( <i>Choristoneura rosaceana</i> )	16 (0.25 lb ai/acre)	<b>Spring (overwintering) generation:</b> Apply at first sign of larval infestation or to small larvae when threshold levels occur. <b>Summer generation:</b> Begin applications at first egg hatch (200-300 DD) following biofix <sup>1</sup> -base 43°F) Additional applications at 10- to 14-day intervals may be required under high pressure or sustained moth flight.	
omnivorous leafroller ( <i>Platynota stultana</i> ) redbanded leafroller ( <i>Argyrotaenia velutinana</i> ) variegated leafroller ( <i>Platynota flavedana</i> )		For control of other leafrollers, begin applications at early egg hatch for each generation. Make the first application before webbing and sheltering begins. Make a second application in 10 to 14 days to ensure complete coverage of rapidly expanding fruits or foliage.	
alfalfa looper ( <i>Autographa californica</i> ) armyworm cutworm	8 - 16 (0.12 - 0.25 lb ai/acre)	Begin applications when first signs of feeding damage appear or when infestations reach threshold levels as defined by Cooperative Extension Service or other qualified professional authorities.	
gypsy moth ( <i>Lymantria dispar</i> )	4 - 8 (0.06 - 0.12 lb ai/acre)	Apply to early instars (1st, 2nd, or 3rd) at first signs of infestation.	

<sup>1</sup> Biofix is defined as first sustained adult catch in pheromone traps, typically, five moths in three traps within a seven-day period. Consult State Extension Specialists or other qualified authorities for specific information regarding number, placement and management of pheromone traps.

**Canola**

**Specific Use Directions**

Equipment and spray volume should be carefully adjusted to assure thorough uniform coverage of infested parts of the crop.

**Ground Application:** Apply a minimum of 8 gallons per acre by conventional ground equipment to young crop and small plants. Apply a minimum of 10 gallons per acre to densely foliated or difficult to cover crop to ensure thorough coverage.

**Aerial Application:** Apply in a minimum of 5 gallons per acre.

Target Pests	Confirm 2F fl oz/acre	Application Timing	Restrictions
beet armyworm bertha armyworm	8 (0.12 lb ai/acre)	For early season applications only to young crop and small plants. Begin applications when first signs of feeding damage appear or when infestations reach threshold levels as defined by Cooperative Extension Service or other qualified professional authorities.	<ul style="list-style-type: none"> <li>● Do not apply more than 16 fl oz of Confirm 2F per application or exceed 64 fl oz of Confirm 2F per season.</li> <li>● Pre-harvest Interval: Do not harvest within 14 days of application.</li> </ul>
	8 – 16 (0.12 to 0.25 lb ai/acre)	For mid- to late-season applications, heavier infestations, and under conditions in which thorough coverage is more difficult. Under heavy infestations, continuous moth flights and/or egg masses and larvae in all stages of development, re-apply in 10 to 14 days to protect new growth until moth flights and/or hits subside	

**Citrus<sup>1</sup>**

<sup>1</sup>Citrus including but not limited to: calamondin, citrus citron, citrus hybrids (chironja, tangelo, tangor), grapefruit, kumquat, lemon, lime, mandarin (tangerine), pummelo, satsuma mandarin, sour orange, sweet orange.

**Specific Use Directions**

Equipment and spray volume should be carefully adjusted to assure thorough uniform coverage of infested parts of the crop.

**Ground Application:** Apply in a minimum of 50 gallons per acre to trees 10 feet tall or less by conventional ground equipment. For trees greater than 10 feet tall, use a minimum of 100 gallons per acre.

**Aerial Application:** Apply a minimum of 20 gallons per acre in equipment that has been properly patterned and calibrated for environmental conditions at the site. This method should not be used if the size of the tree or density of the foliage prohibits thorough, uniform coverage of the entire tree canopy.

**Spray Adjuvants:** The use of Latron B-1956\* spreader/sticker or similar spreader/sticker is recommended to maximize coverage and retention of the spray material. Addition of a crop oil or other adjuvant with strong penetrant properties may improve performance against citrus leafminer.

Target Pests	Confirm 2F fl oz/acre	Application Timing	Restrictions
citrus cutworm	8 – 16 (0.125 0.25 lb ai/acre)	Make application at the initiation of egg lay, usually in the bloom period. Re-treat in 14-21 days to protect newly expanded fruit against heavy infestations. Additional applications may be required to protect against prolonged moth flight and egg laying.	<ul style="list-style-type: none"> <li>Do not apply more than 80 fl oz of Confirm 2F per season.</li> <li>Pre-harvest Interval: Do not harvest within 14 days of application.</li> </ul>
citrus leafminer		Apply at the initiation of new flush to protect newly expanding leaves.	
omnivorous leafroller orange dog orange tortrix		Apply at first signs of feeding damage or when infestations reach threshold levels as defined by Cooperative Extension Service or other qualified professional authorities.	
fruittree leafroller western tussock moth		Apply at the initiation of egg lay or at the first sign of larval infestation. A second application may be required for control under heavy pressure or sustained moth flight.	

### Cole Crops<sup>1</sup>, Leafy Vegetables<sup>2</sup> and Turnips (Tops and Roots)

<sup>1</sup>**Cole (Brassica) crops includes:** broccoli, Chinese broccoli, broccoli raab, Brussels sprouts, cabbage, bok choy, napa cabbage, Chinese mustard cabbage, cauliflower, cavalo broccolo, collards, kale, kohlrabi, mizuna, mustard greens, mustard spinach, rape greens.

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**<sup>2</sup>Leafy vegetables (except Brassica) includes:** amaranth, arugula, cardoon, celery, Chinese celery, celtuce, chervil, edible-leaved chrysanthemum, garland chrysanthemum, corn salad, garden cress, upland cress, dandelion, dock, endive, florence fennel, lettuce, orach, parsley, garden purslane, winter purslane, radicchio, rhubarb, spinach, New Zealand spinach, vine spinach, Swiss chard.

**Ground Application:** Apply a minimum of 10 gallons per acre by conventional ground equipment to young crop and small plants. Apply a minimum of 20 gallons per acre to densely foliated or difficult to cover crops to ensure thorough coverage.

**Aerial Application:** For optimum performance a minimum application volume of 10 gallons per acre is recommended. Lower carrier volumes may result in less uniform coverage and reduced efficacy.

**Spray Adjuvant:** One pint of adjuvant per 100 gallons of spray mixture is recommended to maximize coverage and distribution of the spray material.

Target Pests	Confirm 2F fl oz/acre	Application Timing	Restrictions
beet armyworm cabbage looper cabbage webworm cross-striped cabbageworm fall armyworm garden webworm imported cabbageworm southern armyworm true armyworm yellowstriped armyworm	6 - 8 (0.09 - 0.12 lb ai/acre)	For early-season applications only to young crop and small plants. Begin applications when first signs of feeding damage appear or when infestations reach threshold levels as defined by Cooperative Extension Service or other qualified professional authorities	<ul style="list-style-type: none"> <li>Do not apply more than 8 fl oz per application and do not exceed 56 fl oz product per season.</li> <li>Allow at least 7 days to elapse between final application and harvest.</li> <li>See Rotational Crop Restrictions in the body of this label.</li> </ul>
	8 (0.12 lb ai/acre)	For mid- to late-season applications and to heavier infestations and under conditions in which thorough coverage is more difficult. Under heavy infestations, continuous moth flights and/or egg masses and larvae in all stages of development, reapplication on a 10- to 14-day schedule will be required to protect new growth until moth flights and/or hits subside.	

**Cotton**

**Ground Application:** Make applications by conventional ground sprayers that are calibrated to deliver a minimum of 5 gallons per acre.

**Aerial Application:** Make applications of Confirm 2F in a minimum of 2 gallons per acre.

**Spray Adjuvants:** Use of a spreader-binder following the manufacturer's labeling is recommended to maximize coverage and distribution of spray mixture.

Target Pests	Application Rate (fl oz/acre)	Application Timing	Restrictions
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beet armyworm	4 - 8 (0.06 - 0.12 lb ai/acre)	For early-season (pre-squaring) applications only. Apply when infestations reach threshold levels as defined by Cooperative Extension Service or other qualified professional authorities.	<ul style="list-style-type: none"> <li>• Do not apply more than 16 fl oz per application and do not exceed 64 fl oz per season.</li> <li>• Allow at least 14 days to elapse between final application and harvest.</li> <li>• See Rotational Crop Restrictions in the body of this label.</li> </ul>
	8 - 16 (0.12 - 0.25 lb ai/acre)	For mid- to late-season applications and infestations of 2 to 10 hits per 100 row ft. Use the higher rates for heavier infestations and under conditions in which thorough coverage is more difficult. Under heavy infestations, continuous moth flights and/or egg masses and larvae in all stages of development, reapplication on a 10- to 14-day schedule will be required to protect new growth until moth flights and/or hits subside.	
cabbage looper fall armyworm southern armyworm true armyworm yellowstriped armyworm	8 - 16 (0.12 - 0.25 lb ai/acre)	Apply when infestations reach threshold levels as defined by Cooperative Extension Service or other qualified professional authorities	

**Cranberry**

**Ground Application:** Make applications by conventional ground sprayers that are calibrated to deliver a minimum of 20 gallons per acre.

**Aerial Application:** Make applications of Confirm 2F in a minimum of 10 gallons per acre.

**Chemigation Application: For use only in solid-set sprinkler systems designed specifically for chemigation.** Apply through a properly calibrated chemigation system that has the appropriate back flow prevention devices. See the Mixing section of this labeling for specific mixing and dilution instructions. Confirm 2F should be applied in dedicated chemigation cycles only, not as a part of a regular irrigation cycle. Do not exceed 900 gallons of water per acre application volume. Minimum volume should be used for flushout to avoid diluting or rinsing off product. Washout time should not exceed six (6) minutes. Sprinkler heads should be set in a spacing not exceeding 50 feet by 60 feet and adjusted to provide 100% overlap. Crop injury, lack of effectiveness, or illegal pesticide residues can result from non-uniform distribution of treated water.

**General Precautions for Applications through Chemigation Systems**

- Do not connect an irrigation system used for pesticide application to a public water system unless the pesticide label-prescribed safety devices for public water systems are in place.
- Chemigation systems connected to public water systems must contain a functional reduced-pressure zone (RPZ), back flow preventer or the functional equivalent in the water supply line upstream from the point of pesticide introduction. As an option to the RPZ, the water from the public water system should be discharged into a reservoir tank prior to pesticide introduction. There shall be a complete physical break (air gap) between the outlet end of the fill pipe and the top or overflow rim of the reservoir tank of at least twice the inside diameter of the fill pipe.

- Systems not connected to a public water supply must contain a functional check valve, vacuum relief valve, and low-pressure drain appropriately located in the irrigation pipeline to prevent water source contamination from back flow.
- The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.
- The pesticide injection pipeline must also contain a functional, normally closed solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.
- The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops, or in cases where there is no water pump, when the water pressure decreases to the point where pesticide distribution is adversely affected.
- The irrigation line or water pump must include a functional pressure switch that will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected.
- Systems must use a positive displacement, metering injection pump (e.g., diaphragm pump), effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.
- Do not apply when wind speed favors drift beyond the area intended for treatment.
- If you have questions about calibration, you should contact State Extension Service specialists, equipment manufacturers or other experts.

Target Pests	Confirm 2F fl oz/acre	Application Timing	Restrictions
blackheaded fireworm	16 (0.25 lb ai/acre)	<p><b>First generation:</b> Apply at first sign of larval infestation and make a second application 7 to 10 days following the first application.</p> <p><b>Second generation:</b> Make the first application at 10 to 20% egg hatch (typically 8 to 12 days following biofix<sup>1</sup>) followed by a second application 7 to 10 days later.</p>	<ul style="list-style-type: none"> <li>• Do not apply more than 64 fl oz of Confirm 2F per season.</li> <li>• Allow at least 30 days to elapse between final application and harvest.</li> </ul>
spotted fireworm		<p><b>First generation:</b> Apply to small larvae before webbing occurs when threshold infestations are detected by sweep net sampling. Make a second application 7 to 10 days following the first application to heavy infestations or sustained moth flight.</p> <p><b>Second generation:</b> Make the first application at 10 to 20% egg hatch (usually mid- to late June) followed by a second application 7 to 10 days later.</p>	

sparganothis fruitworm		<p><b>First generation:</b> Initiate applications as soon as larvae are detected by sweep net sampling. Make a second application in 7 to 14 days.</p> <p><b>Summer generation:</b> Make the first application at 5 to 10% egg hatch (usually 10 to 14 days following biofix) followed by a second application 7 to 10 days later (about 60% egg hatch).</p>	
cranberry fruitworm		<p>Apply at initiation of egg laying (approximately 400 Day Degrees (DD) following biofix-base 50°F). Make a second application at 100% petal fall (usually 7 to 14 days after the initial application). Additional applications at 10- to 14-day intervals may be required under high pressure or sustained moth flight.</p> <p>Chemigation application for control of cranberry fruitworm is not recommended.</p>	
blossom worm false armyworm gypsy moth		<p>Apply when larvae are in the 1st to 3rd instar and when action thresholds are reached based on local Extension Service recommendations.</p>	
spanworms		<p>Initiate applications when infestations reach threshold levels based on sweep net sampling. Additional applications at 10- to 14-day intervals may be required under high pressure or sustained moth flight.</p>	

<sup>1</sup>Biofix is defined as first sustained adult catch in pheromone traps, typically, five moths in three traps within a seven-day period. Consult State Extension Specialists or other qualified authorities for specific information regarding number, placement and management of pheromone traps.

## Fruiting Vegetables<sup>1</sup>

<sup>1</sup>**Fruiting vegetables includes:** eggplant, ground cherry, pepino, pepper (bell, chili, cooking), pimento, tomatillo and tomato.

**Ground Application:** Apply a minimum of 10 gallons per acre by conventional ground equipment to young crop and small plants. Apply a minimum of 20 gallons per acre to dense foliage or difficult to cover crops to ensure thorough coverage.

**Aerial Application:** For optimum performance a minimum application volume of 10 gallons per acre is recommended. Lower carrier volumes may result in less uniform coverage and reduced efficacy.

**Spray Adjuvant:** One pint of spreader-binder per 100 gallons of spray mixture is recommended to maximize coverage and distribution of the spray material.

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Target Pests	Confirm 2F fl oz/acre	Application Timing	Restrictions
alfalfa looper beet armyworm black cutworm cabbage looper European corn borer fall armyworm imported cabbageworm southern armyworm tobacco hornworm tomato hornworm true armyworm yellowstriped armyworm	6 - 8 (0.09 - 0.12 lb ai/acre)	For early-season applications only to young crop and small plants. Begin applications when first signs of feeding damage appear or when infestations reach threshold levels as defined by Cooperative Extension Service or other qualified professional authorities	<ul style="list-style-type: none"> <li>Do not apply more than 16 fl oz per application and do not exceed 64 fl oz of this product per season.</li> <li>Allow at least 7 days to elapse between final application and harvest.</li> <li>See Rotational Crop Restrictions in the body of this label.</li> </ul>
	8 - 16 (0.12 - 0.25 lb ai/acre)	For mid- to late-season applications and to heavier infestations and under conditions in which thorough coverage is more difficult. Under heavy infestations, continuous moth flights and/or egg masses and larvae in all stages of development, reapplication on a 10- to 14-day schedule will be required to protect new growth until moth flights and/or hits subside.	

**Mint**

**Ground Application:** Apply a minimum of 8 gallons per acre by conventional ground equipment to young crop and small plants. Apply a minimum of 10 gallons per acre to densely foliated or difficult to cover crops to ensure thorough coverage.

**Aerial Application:** Make applications of Confirm 2F in a minimum of 5 gallons per acre.

**Spray Adjuvant:** One pint of spreader-binder per 100 gallons of spray mixture is recommended to maximize coverage and distribution of the spray material.

Target Pests	Confirm 2F (fl oz/acre)	Application Timing	Restrictions
alfalfa looper ( <i>Autographa californica</i> ) beet armyworm ( <i>Spodoptera exigua</i> ) bertha armyworm ( <i>Mamestra configurata</i> )	6 - 8 (0.09 - 0.12 lb ai/acre)	For early-season applications only to young crop and small plants. Begin applications when first signs of feeding damage appear or when infestations reach threshold levels as defined by Cooperative Extension Service or other qualified professional authorities	<ul style="list-style-type: none"> <li>Do not apply more than 16 fl oz per application and do not exceed 64 fl oz of this product per season.</li> <li>Allow at least 14 days to elapse</li> </ul>

	8 - 16 (0.12 - 0.25 lb ai/acre)	For mid- to late-season applications and to heavier infestations and under conditions in which thorough coverage is more difficult. Under heavy infestations, continuous moth flights and/or egg masses and larvae in all stages of development, reapplication on a 10- to 14-day schedule will be required to protect new growth until moth flights and/or hits subside.	between final application and harvest.
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## Ornamentals

When used as recommended, Confirm 2F will control the designated pests on trees, shrubs, foliage plants and flowers grown in commercial nurseries and greenhouses, in Christmas tree farms, in outdoor landscape areas such as parks, recreational areas, institutional grounds, residential property, etc., and in interior plantscapes.

When applied as directed, Confirm 2F has shown excellent tolerance on a wide range of ornamental plants. It is impossible, however, to evaluate this product on all ornamentals or under all possible growing conditions. The user should exercise reasonable judgment and caution with this product. Until familiar with results under user growing conditions, a limited number of plants should be treated.

### Resistance Management for Ornamental Use Only:

Resistance to pesticides has been shown to develop when a pesticide is used continuously against many generations of a target pest. Nippon Soda Co., Ltd. encourages the periodic interruption of continuous use by utilization of Integrated Pest Management (IPM) practices or by the periodic use of a product with an alternative mode of action to delay or prevent development of resistance. Since the development of resistance cannot be predicted, we suggest you consult local or State Extension Service personnel for resistance management strategies appropriate to your crop locality and production practices. Do not use this product to control more than three consecutive generations of pests in a cropping area (field) regardless of the crop rotation on that field. If you are unsure of the number of generations treated, do not use this product more than four times within any 80-day interval. If Confirm 2F has been applied four times in 80 days or less, allow at least 40 days to pass before making additional applications

## Application

**Hand Sprayers:** Make applications using enough water to thoroughly spray plant foliage until runoff. Refer to the following table for product recommendations when using a hand sprayer.

Confirm 2F fl oz/acre	Active Ingredient lb ai/acre	Equivalent Confirm 2F in 1 Gallon of Water (Teaspoon)
4	0.06	1/4
8	0.12	1/2
16	0.25	1

**Ground Application** Make applications of Confirm 2F by conventional ground or hydraulic sprayers that are calibrated to deliver a minimum of 50 gallons per acre. For mist blowers or air blast sprayers, use a minimum of 10 gallons per acre. Application equipment should be properly calibrated and provide uniform spray coverage throughout the plant canopy

**Aerial Application** Make applications of Confirm 2F in a minimum of 20 gallons per acre. Confirm 2F can be applied by aerial application when situations warrant. However, this method should not be used if the size of the tree or density of the foliage prohibits thorough, uniform coverage of the entire tree canopy.

**Chemigation Application Directions for Use for Ornamentals Only:**

**Sprinkler Irrigation: For use only in solid-set sprinkler systems designed specifically for chemigation.**

Apply through a properly calibrated chemigation system that has the appropriate back flow prevention devices. This product should be applied in dedicated chemigation cycles only, not as part of a regular irrigation cycle. Do not exceed 1200 gallons of water per acre application volume. Minimum volume should be used for flush out to avoid diluting or rinsing off product. Washout time should not exceed the time needed to clear the lines. Sprinkler heads should be set in a spacing not exceeding 50 feet by 60 feet and adjusted to provide 100% overlap.

**General Precautions for Applications Through Chemigation Systems:**

- Apply only through solid-set sprinkler systems. Do not apply product through any other type of irrigation system.
- Crop injury, lack of effectiveness or illegal pesticide residues can result from nonuniform distribution of treated water.
- If you have questions about calibration, you should contact State Extension Service specialists or equipment manufacturers.
- Do not connect an irrigation system used for pesticide application to a public water system unless the pesticide label-prescribed safety devices for public water systems are in place.
- A person knowledgeable of the chemigation system and responsible for its operation, or under the supervision of the responsible person, shall shut the system down and make necessary adjustments should the need arise.

**When Applying via Sprinkler Chemigation:**

- The system must contain a functional check valve, vacuum relief valve, and low-pressure drain appropriately located on the irrigation pipeline to prevent water source contamination from back flow.
- The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.
- The pesticide injection pipeline must also contain a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.
- The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops.
- The irrigation line or water pump must include a functional pressure switch that will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected.
- Systems must use a metering pump, such as a positive displacement injection pump (e.g., diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.
- Do not apply when wind speed favors drift beyond the area intended for treatment.

**When the Chemigation System is Connected to a Public Water System:**

- Public water system means a system for the provision to the public of piped water for human consumption if such system that has at least 15 service connections or regularly serves an average of at least 25 individuals daily at least 60 days out of the year.
- Chemigation systems connected to public water systems must contain a functional reduced-pressure zone (RPZ), backflow preventer or the functional equivalent in the water supply line upstream from the point of pesticide introduction. As an option to the RPZ, the water from the public water system should be discharged into a reservoir tank prior to pesticide introduction. There shall be a complete physical break (air gap) between the outlet end of the pipe fill and the top or overflow rim of the reservoir tank of at least twice the inside diameter of the fill pipe.

- The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.
- Systems not connected to a public water supply must contain a functional check valve, vacuum relief valve, and low-pressure drain appropriately located in the irrigation pipeline to prevent water source contamination from back flow.
- The pesticide injection pipeline must contain a functional, normally closed solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.

**Spray Adjuvants:** A spray adjuvant should be used with Confirm 2F applications. The adjuvant will improve initial spray deposits, redistribution and weatherability of Confirm 2F. The adjuvant chosen should be approved for use on the ornamentals being treated. Since some adjuvants can be phytotoxic to certain ornamental plants, the user should have prior experience with the adjuvant before combining it with Confirm 2F.

<b>Target Pests</b>		
armyworm ( <i>Pseudaletia unipuncta</i> )	fall webworm ( <i>Hyphantria cunea</i> )	spruce budworm ( <i>Choristoneura fumiferana</i> )
bagworms ( <i>Thridopteryx ephemeraeformis</i> )	Florida fern caterpillar ( <i>Callopietria floridensis</i> )	western spruce budworm ( <i>Choristoneur occidentalis</i> )
beet armyworm ( <i>Spodoptera exigua</i> )	gypsy moth ( <i>Lymantria dispar</i> )	tent caterpillar
browntail moth ( <i>Euproctis chrysorrhoea</i> )	hemlock looper ( <i>Lambdina fiscellaria</i> )	forest, eastern, western ( <i>Malacosoma disstria</i> , <i>Malacosoma americanum</i> , <i>Malacosoma californicum</i> )
codling moth ( <i>Cydia pomonella</i> )	jack pine budworm ( <i>Choristoneura pinus</i> )	tussock moth ( <i>Dasychira pinicola</i> , <i>Lophocampa maculata</i> , <i>Orgyia pseudotsugata</i> , <i>O. vetusta</i> )
cutworms	pine tip moth ( <i>Rhyacionia frustrana</i> , <i>R. neomexicana</i> , <i>R. buoliana</i> , <i>R. rigidana</i> , <i>R. subtropica</i> )	yellowneck caterpillar ( <i>Datana ministra</i> )
elm spanworm ( <i>Ennomos subsignaria</i> )	processionary caterpillar ( <i>Thaumtopoea pityocampa</i> )	zimmerman pine moth ( <i>Dioryctria zimmerman</i> )
eucalyptus caterpillar ( <i>Thyrinzeina arnobia</i> )	puss caterpillar ( <i>Megalopyge opercularis</i> )	
fall armyworm ( <i>Spodoptera</i> )		
fall cankerworm ( <i>Alsophila pometaria</i> )		
<b>Application Rate (fl oz/acre)</b>	<b>Application Timing</b>	<b>Restrictions</b>
4 - 16 (0.06 - 0.25 lb ai/acre)	For best results, begin applications when larvae are observed or at the first sign of feeding damage. Repeat applications on a 10- to 14-day interval or as necessary based on pest reinfestation.	<ul style="list-style-type: none"> <li>• Allow at least six hours between the completion of insecticide applications and the onset of precipitation to assure thorough spray drying.</li> <li>• Uniform coverage of the foliage is essential to provide maximum protection from defoliation and reduction of egg mass deposition.</li> </ul>

**Pome Fruits**

(apples, crabapples, loquat, mayhaw, pears including oriental, quince)

**Ground Application:** Make applications of Confirm 2F by conventional ground sprayers which are calibrated to deliver a minimum of 50 gallons per acre to trellised trees or trees 10 feet tall or less. For trees greater than 10 feet tall, use a minimum of 100 gallons per acre

**Aerial Application:** Make applications of Confirm 2F in a minimum of 20 gallons per acre. Confirm 2F can be applied by aerial applications when situations warrant. However, this method should not be used if the size of the tree or density of the foliage prohibits thorough, uniform coverage of the entire tree canopy.

**Spray Adjuvant:** The use of a spreader-sticker to maximize uniform coverage and distribution of the spray material is recommended.

Target Pests	Confirm 2F fl oz/acre	Application Timing	Restrictions
codling moth (east of the Rockies) codling moth (west of the Rockies) For use against low to moderate infestations in conjunction with alternate control measures such as in established Mating Disruption blocks.	20 (0.31 lb ai/acre)	For each codling moth generation, apply at initiation of egg hatch [150 to 250 Day Degrees (DD), base 50°F, following biofix <sup>1</sup> ] followed by a second application at 10 to 15 days following the first application (usually 450 to 550 DD). Additional applications at 10 to 15-day intervals may be required under high infestations, sustained moth flight, or to ensure coverage of rapidly expanding fruits or foliage.	<ul style="list-style-type: none"> <li>• Do not apply more than 20 fl oz per application or 120 fl oz Confirm 2F per acre per season.</li> <li>• Allow at least 14 days to elapse between final application and harvest.</li> <li>• Do not graze livestock in treated areas or feed cover crops grown in treated areas to livestock.</li> </ul>
obliquebanded leafroller (west of the Rockies)		<p><b>Spring (overwintering) generation:</b> Make 1 to 2 applications during the pink to petal fall period depending upon infestation level.</p> <p><b>Summer generation:</b> Begin applications at early egg lay through early egg hatch (usually 200 to 400 DD, base 43°F, following biofix<sup>1</sup>). Make a second application at 10 to 18 days later (usually 650 to 850 DD).                      A third application 10 to 14 days after the second application may be required under high pressure, sustained moth flight or prolonged shoot growth.</p>	

<p>obliquebanded leafroller</p>		<p><b>Spring (overwintering) generation:</b> Make 1 to 2 applications during the pink to petal fall period depending on infestation level.</p> <p><b>Summer generation:</b> Begin applications at peak moth flight (200 to 300 DD, base 43°F, following biofix<sup>1</sup>). Make a second application 7 to 14 days later (usually 500 to 600 DD). A third application 10 to 14 days after the second application (usually 800 to 900 DD), may be required under high pressure, sustained moth flight or prolonged shoot growth.</p> <p><b>Fall overwintering generation:</b> Apply to late season larval infestations of overwintering generation to minimize damage to the fruit.</p>	
<p>pandemis leafroller</p>		<p><b>Spring (overwintering) generation:</b> Make 1 to 2 applications during the pink to petal fall period depending on infestation level.</p> <p><b>Summer generation:</b> Begin applications at early egg lay through early egg hatch (250 to 400 DD, base 41°F, following biofix<sup>1</sup>). Make a second application 10 to 18 days (usually 600 to 800 DD). Under heavy infestation a third application may be required 10 to 14 days after the second application.</p>	
<p>tufted apple bud moth</p>	<p>12 - 20 (0.19 - 0.31 lb ai/acre)</p>	<p><b>First generation:</b> Make application at 10 to 30% egg hatch (600 to 900 DD, base 45°F, after biofix<sup>1</sup> depending upon local conditions). A second application at 60 to 90% egg hatch may be required under heavy infestation levels.</p> <p><b>Second generation:</b> Make the first application at 20 to 30% egg hatch (2300 to 2500 DD). A second application approximately 14 days later may be required under high pressures or sustained moth flight or late maturing varieties.</p>	

eyespotted bud moth fruittree leafroller redbanded leafroller variegated leafroller	20 (0.31 lb ai/acre)	For control of other leafrollers, begin applications at early egg hatch for each generation. Make the first application before webbing and sheltering begins. Make a second application in 10 to 14 days to ensure complete coverage of rapidly expanding fruits or foliage.
lesser appleworm		For each generation, apply at initiation of egg hatch before larvae enter the fruit. Make a second application 10 to 14 days following the first to ensure complete coverage of rapidly expanding fruits or foliage or under conditions of high infestation or sustained moth flight.
green fruitworm laconobia fruitworm	10 - 20 (0.15 - 0.31 lb ai/acre)	Apply at initiation of egg hatch or at the first sign of larval infestation. A second application may be required 10 to 14 days following the first application to ensure complete coverage of rapidly expanding fruits or foliage.

<sup>1</sup>Biofix is defined as first sustained adult catch in pheromone traps, typically, five moths in three traps within a seven-day period. Consult State Extension Specialists or other qualified authorities for specific information regarding number, placement and management of pheromone traps.

**Sugarcane**

**Ground Application:** Make applications by conventional ground sprayers that are calibrated to deliver a minimum of 10 gallons per acre.

**Aerial Application:** Make applications of Confirm 2F in a minimum of 2 gallons per acre. Higher carrier volume may be required to provide thorough coverage under conditions of high temperatures, low humidity or dense crop canopy.

**Spray Adjuvant:** Use of a spreader-binder following the manufacturer's labeling is recommended to maximize coverage and distribution of spray mixture.

Target Pests	Confirm 2F fl oz/acre	Application Timing	Restrictions
Sugarcane borer ( <i>Diatrea saccharalis</i> )	6 - 8 (0.09 - 0.12 lb ai/acre)	Begin applications when first signs of feeding damage appear or when infestations reach threshold levels as defined by Cooperative Extension Service or other qualified professional authorities.	<ul style="list-style-type: none"> <li>• Do not apply more than 16 fl oz per application and do not exceed 64 fl oz per season.</li> <li>• Allow at least 14 days to elapse between final application and harvest.</li> <li>• See Rotational Crop Restrictions</li> </ul>
Mexican rice borer ( <i>Eoreuma loftini</i> )	16 (0.25 lb ai/acre)	Under heavy infestations, continuous moth flights and/or egg masses and larvae in all stages of development, reapplication on a 10- to 14-day	

		schedule will be required to protect new growth until moth flights and/or hits subside.	in the body of this label.
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### Tree Nuts

[almond, beech nut, Brazil nut, butternut, cashew, chestnut, chinquapin, filbert (hazelnut), hickory nut, macadamia (bush) nut, pecan, walnut (black and English) including pistachio]

#### Almond

**Ground Application:** Make applications of Confirm 2F by conventional ground sprayers which are calibrated to deliver a minimum of 50 gallons per acre to almond trees 4th leaf or younger. For trees 5th leaf or older use a minimum of 100 gallons per acre. Ground speed of the sprayer should not exceed 2 mph.

**Aerial Application:** Make applications of Confirm 2F in a minimum of 20 gallons per acre. Confirm 2F can be applied by aerial applications when situations warrant. However, this method should not be used if the size of the tree or density of the foliage prohibits thorough, uniform coverage of the entire tree canopy.

Target Pests	Confirm 2F fl oz/acre	Application Timing	Restrictions
peach twig borer	16 - 30 (0.25 - 0.47 lb ai/acre)	<b>Spring (overwintering) generation:</b> Make 1 to 2 applications during the bloom to petal fall period depending on infestation level. <b>Summer generations:</b> Begin applications at peak moth flight (250 to 350 DD, base 50°F, following biofix) for each generation. Additional applications at 10- to 14-day intervals may be required under high pressure or sustained moth flight. Higher use rates may also be used for extended residual effectiveness, higher pest infestation levels, larger trees or heavy, dense foliage.	<ul style="list-style-type: none"> <li>Do not apply more than 30 fl oz per application or 122 fl oz per season.</li> <li>Allow at least 14 days to elapse between final application and harvest.</li> <li>Do not graze livestock in treated areas or feed cover crops grown in treated areas to livestock.</li> </ul>
navel orangeworm	18 - 30 (0.28 - 0.47 lb ai/acre)	Make first application at the initiation of hull split and make a second application 10 to 14 days later. Under heavy infestation a third application may be required 10 to 14 days after the second application	

#### Pecans

**Ground Application:** Make applications of Confirm 2F by conventional ground sprayers which are calibrated to deliver a minimum of 50 gallons per acre to trees 10 feet tall or less. For trees greater than 10 feet tall, use a minimum of 100 gallons per acre.

**Aerial Application:** Make applications of Confirm 2F in a minimum of 5 gallons per acre. Confirm 2F can be applied by aerial applications when situations warrant. However, application by this method may result

in reduced efficacy if the size of the tree or density of the foliage prohibits thorough, uniform coverage of the entire tree canopy.

Target Pests	Confirm 2F fl oz/acre	Application Timing	Restrictions
pecan nut casebearer	8 - 16 (0.12 - 0.25 lb ai/acre)	For each generation, apply at the initiation of egg hatch (for first generation this is approximately 8 to 15 days following first sustained moth catch <sup>1</sup> ). Control of first generation pecan nut casebearer may require a second application under conditions of extended egg lay or for improved coverage of rapidly expanding nuts and foliage. Use higher rates for extended residual effectiveness, higher pest infestations, low crop load, larger trees or heavy, dense foliage.	<ul style="list-style-type: none"> <li>• Do not apply more than 122 fl oz per season.</li> <li>• Allow at least 14 days to elapse between final application and harvest.</li> <li>• Do not graze livestock in treated areas or feed cover crops grown in treated areas to livestock.</li> </ul>
hickory shuckworm		Initiate applications at half-shell hardening. Make subsequent applications at 14-day intervals to shuck split or while nuts are susceptible to hickory shuckworm for heavy infestations.	
fall webworm walnut caterpillar		Make applications at the first sign of larval infestation.	

<sup>1</sup>First sustained moth catch (biofix) is defined as the date on which the total of five moths are captured in three pheromone traps within a seven-day period. Consult State Extension Specialists or other qualified authorities for specific information regarding number, placement and management of pheromone traps.

**Walnuts**

**Ground Application:** Make applications of Confirm 2F by conventional ground sprayers which are calibrated to deliver a minimum of 50 gallons per acre to walnut trees 4th leaf or younger. For walnut trees 5th leaf or older use a minimum of 100 gallons per acre. Ground speed of the sprayer should not exceed 2 mph.

**Aerial Application:** Make applications of Confirm 2F in a minimum of 20 gallons per acre. Confirm 2F can be applied by aerial applications when situations warrant. However, this method should not be used if the size of the tree or density of the foliage prohibits thorough, uniform coverage of the entire tree canopy.

**Split Application:** In order to achieve thorough uniform coverage of extremely tall, dense trees, it may be preferable to apply a split application composed of both aerial and ground methods. Both portions of the application must be made within the timing window as described below. The total amount of Confirm 2F applied in a split application cannot exceed 30 fl oz per acre.

Target Pests	Confirm 2F fl oz/acre	Application Timing	Restrictions
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codling moth	16 - 30 (0.25 - 0.47 lb ai/acre)	For each codling moth generation, apply at initiation of egg hatch (200 to 250 DD following biofix <sup>1</sup> ). Control of first generation codling moth may require a second application 10 to 14 days following first application to ensure complete coverage of rapidly expanding foliage and expanding surface area of the walnut. After plant foliage expansion and walnut growth has ceased, multiple applications (every 14 to 21 days) may be required to provide control of extended codling moth flights. Higher use rates may also be used for extended residual effectiveness, higher pest infestation levels, larger trees or heavy, dense foliage.	<ul style="list-style-type: none"> <li>• Do not apply more than 30 fl oz per application or 122 fl oz per season.</li> <li>• Allow at least 14 days to elapse between final application and harvest.</li> <li>• Do not graze livestock in treated areas or feed cover crops grown in treated areas to livestock.</li> </ul>
navel orange worm		Apply at initiation of egg hatch.	
fall webworm redhumped caterpillar		Apply at first sign of larvae appearance.	

<sup>1</sup>First sustained moth catch (biofix) is defined as the date on which the total of five moths are captured in three pheromone traps within a seven-day period. Consult State Extension Specialists or other qualified authorities for specific information regarding number, placement and management of pheromone traps.

**Tree Nut Crops Not Specifically Listed in the Above Charts**

For control of lepidoptera pests for which Confirm 2F is registered.

**Restrictions:**

- Allow at least 14 days to elapse between final application and harvest.
- Do not apply more than 30 fl oz per application or 122 fl oz per season

Performance of Confirm 2F against pests not listed on this label cannot be warranted nor can crop tolerance of Confirm 2F in all types and varieties of tree nuts be assured. If unsure, the user is advised to treat a few trees to observe for symptoms before treating large blocks of trees. Generally, optimum performance against lepidopterous pests (worms) is achieved when Confirm 2F is applied at the initiation of egg hatch. Reapplication in 10 to 20 days may be required if the plant part(s) to be protected from insect damage is rapidly growing or expanding or if pest infestations are heavy or extended.

**Trees<sup>1</sup>, Forests<sup>2</sup>, and Shrubs<sup>3</sup>**

<sup>1</sup>**Trees include:** Christmas Trees, nurseries and plantations, conifer seed orchards, ornamental and shade trees.

<sup>2</sup>**Forests include:** commercial, private and public forestland, conifer release sites, shelterbelts and windbreaks, and forest plantings.

<sup>3</sup>**Shrubs include:** woody shrubs and vines.

Because Confirm 2F must be ingested in order to be effective, it is essential that coverage is thorough and uniform. Higher carrier volumes and higher use rates are recommended for very large trees or dense stands and for heavy target pest infestations.

**Ground Application:** Hydraulic ground sprayers should be calibrated to deliver a minimum of 50 gallons per acre. For mist blowers or air blast sprayers, use a minimum of 10 gallons per acre.

**Aerial Application:** Make applications in a minimum of 1 gallon per acre. Higher carrier volumes are recommended when environmental conditions are less than ideal for aerial applications.

Target Pests	Confirm 2F (fl oz/acre)	Application Timing	Restrictions
bagworms <i>(Thridopteryx ephemeraeformis)</i> browntail moth <i>(Euproctis chrysorrhoea)</i> elm spanworm <i>(Ennomos subsignaria)</i> fall cankerworm <i>(Alsophila pometaria)</i> fall webworm <i>(Hyphantria cunea)</i>	4 - 8 (0.06 - 0.12 lb ai/acre)	Apply to early instar (1st, 2nd, or 3rd) larvae; in general, foliage development should be a minimum of 20%.	<ul style="list-style-type: none"> <li>Do not apply more than 16 fl oz per year.</li> <li>Uniform coverage of the foliage is essential to provide maximum protection from defoliation and reduction of egg mass deposition.</li> </ul>
gypsy moth ( <i>Lymantria dispar</i> ) hemlock looper <i>(Lambdina fiscellaria)</i> jack pine budworm <i>(Choristoneura pinus)</i> puss caterpillar <i>(Megalopyge opercularis)</i> tent caterpillar forest, eastern, western <i>(Malacosoma disstria, Malacosoma americanum, Malacosoma californicum)</i> zimmerman pine moth <i>(Dioryctria zimmerman)</i>			
pine tip moth <i>(Rhyacionia frustrana, R. neomexicana, R. buoliana, R. rigidana, R. subtropica)</i>	8 (0.12 lb ai/acre)	Apply to early instar (1st to 2nd) larvae after each new foliage flush, in general, at approximately 25% shoot expansion.	

spruce budworm ( <i>Choristoneura fumiferana</i> and <i>C. occidentalis</i> ) tussock moth ( <i>Dasychira pinicola</i> , <i>Lophocampa maculata</i> , <i>Orgyia pseudotsugata</i> , <i>O. vetusta</i> )	4 - 8 (0.06 - 0.12 lb ai/acre)	Make application to 4th to 5th instar larvae that are actively feeding on foliage or outside candle caps.	
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1. Refund of purchase price paid by buyer or user for product bought, or
2. Replacement of amount of product used

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